

U. S. Patent Application No.: 09/385,597
Supplemental Response Under 37 C.F.R. §1.111, dated December 23, 2005

Amendments To The Specification:

Please replace paragraph beginning and ending on page 1, lines 5-10 with the following amended paragraph:

The present application is a continuation-in-part of ~~U.S. Patent Application Serial No.~~ U.S. patent application ser. no. 08/839,020 filed April 23, 1997, which issued as U.S. Patent No. 5,965,863 on October 12, 1999 which, in turn, is a continuation-in-part of ~~U.S. Patent Application Serial No.~~ U.S. patent application ser. no. 08/697,913, filed September 3, 1996, which issued as U.S. Patent No. 5,900,613 on May 4, 1999.

Please replace paragraph beginning on page 3, lines 26-28 and ending on page 4, lines 1-10 with the following amended paragraph:

Optical readers, particularly hand held optical readers, that are capable of 1D/2D autodiscrimination are less well known in the art, since 2D matrix symbologies are relatively recent developments. One example of a hand held reader of this type which is based on the use of an asynchronously moving 1D image sensor, is described in copending, commonly assigned U.S. Patent No. 5,773,806, which application is hereby expressly incorporated herein by reference. Another example of a hand held reader of this type which is based on the use of a stationary 2D image sensor, is described in copending, commonly assigned U.S. patent application ser. no. ~~08/914,833~~ 08/914,883 (now U.S. Patent No. 5,942,741), which is also hereby expressly incorporated herein by reference.

Please replace paragraph beginning and ending on page 5, lines 17-20 with the following amended paragraph:

One set of solutions to the problem of maintaining the desired tracking relationship between the scanning and decoding phases of the reading process is described in previously mentioned copending U.S. patent application ser. no. ~~08/914,833~~ 08/914,883 (now U.S. Patent No. 5,942,741). Another set of solutions to the problem of maintaining the desired tracking relationship between the scanning and decoding phases of the reading process is described in U.S. patent no. 5,463,214, which issued on the parent application of the last mentioned copending patent application.

Page 2 of 6

U. S. Patent Application No.: 09/385,597
Supplemental Response Under 37 C.F.R. §1.111, dated December 23, 2005

Please replace paragraph beginning and ending on page 11, lines 10-25 with the following amended paragraph:

When a reader is one in which the scan engine cannot be readily started and stopped, or in which such starts and stops impose unacceptable delays or produce user perceptible flicker, the present invention preferably operates in one of the tracking relationships described in previously mentioned copending application ser. no. ~~08/914,833~~ 08/914,883 (now U.S. Patent No. 5,942,741). One of these tracking relationships is a Skip Scan tracking relationship in which the results of one or more scans may be skipped over entirely in favor of more recently produced scan results. Another is a Decode On Demand tracking relationship in which decoding is suspended briefly as necessary to allow a scan then in progress to be completed. The latter relationship is ordinarily not preferred, but is still useful when the reader is such that its scan memory is able to store only two complete blocks of scan data.

Please replace paragraph beginning and ending on page 24, lines 1-16 with the following amended paragraph:

Significantly, the above-mentioned structural correspondences between Figs. 1, 2 and 3 should not be confused with the types of symbols that may be read thereby. More particularly, the 2D embodiment of Fig. 2 may be used to scan and decode both 1D and 2D bar code symbols. This is because both types of symbols can be imaged by a 2D image sensor. Similarly, the 1D embodiment of Fig. 3 may also be used to scan and decode both 1D and 2D bar code symbols. This is because a 1D image sensor may be used to image a 2D bar code symbol, provided that it is physically moved thereacross during the course of a scan. Because imaging of the latter type is described in detail in copending U.S. patent application serial no. 08/504,643, (now U.S. Patent No. 5,773,806) which has been incorporated by reference herein, that type of imaging assembly will not be discussed again in full herein.

U. S. Patent Application No.: 09/385,597
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Please replace paragraph beginning and ending on page 73, lines 3-8 with the following amended paragraph:

The differences between the three tracking modes of the invention are best understood with reference to Figs. 12-14. The latter figures (with changes in figure and indicia number) are incorporated from prior copending U.S. patent application ser. no. ~~08/914,833~~ 08/914,883 (now U.S. Patent No. 5,942,741), together with their associated descriptions as follows:

Please replace paragraph beginning and ending on page 85, lines 8-16 with the following amended paragraph:

If the reader includes a 2D image sensor, this image data will have been scanned as a 2D image while the reader is held substantially stationary with respect to its target. If the reader includes a 1D image sensor this image data will have been scanned as a series of 1D images while the reader is being moved asynchronously across the target in the manner described in copending commonly assigned U.S. Patent application ser. no. 08/504,643 (now U.S. Patent No. 5,773,806), which is expressly incorporated herein by reference.

Please replace paragraph beginning on page 95, lines 19-28 and ending on page 96, lines 1-3 with the following amended paragraph:

Particularly advantageous for purposes of the present invention, however, is bullseye type finder finding algorithm of the type that may be used both with 2D symbologies, such as MaxiCode, that have bullseye finder patterns that include concentric rings and with 2D symbologies, such as Aztec, that have bullseye finder patterns that include concentric polygons. A finder finding algorithm of the latter type is described in copending, commonly assigned U.S. patent application ser. no. 08/504,643 (now U.S. Patent No. 5,773,806), which has been incorporated herein by reference. The Aztec 2D bar code symbology itself is fully described in U.S. patent application ser. no. 08/441,446 (now U.S. Patent No. 5,591,956), which has also been incorporated herein by reference.